

THE SYNONYMY OF *CIROLANA TUBERCULATA*
(RICHARDSON, 1910) (ISOPODA: FLABELLIFERA: CIROLANIDAE)

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Abstract.—The syntypes of *Alcirona tuberculata* Richardson, 1910 (Coralanidae) were examined and determined to be more appropriately placed in the genus *Cirolana* Leach, 1818 (Cirolanidae). The species is redescribed here as *Cirolana tuberculata*.

Cirolana Leach, 1818

Diagnosis.—Rostral process minute or absent. Frontal lamina flat. Antennular peduncle 2- or 3-articulate; articles 1 and 2 of antennule not forming right angles to one another (as in *Eurydice*). Antenna peduncle 5-articulate. Mandible with broad tridentate incisor; lacinia mobilis and molar process well-developed. Maxilliped usually with 1-3 coupling hooks (occasionally more) on endite. Pereopod dactyls with small secondary ungues. Pleonite 1 often concealed by pereonite VII; pleonite 5 narrower than 1-4, with lateral margins covered by pleonite 4. Pleopods 1 and 2 similar to each other; endopod of pleopod 5 without setae. Appendix masculinum arising basally from endopod of pleopod 2. Inner angle of uropod peduncle strongly produced; uropod rami with or without plumose marginal setae. (Modified after Brusca and Iverson 1985.)

Cirolana tuberculata (Richardson, 1910)
Figs. 1, 2

Alcirona tuberculata Richardson, 1910:8,
figs. 7a,b.

Material examined.—Philippine Islands; U.S. Bureau of Fisheries Steamer *Albatross*, sta 5141, Jolo Light, 5.5 mi. S 17 E, (6°09'00"N, 120°58'00"E) 53 m, "in coral

and sand" USNM No. 40910, syntypes 1 male, 7.5 mm 1 female, 8.0 mm. 15 Feb 1908.

Description of male.—Cephalon without tubercles; eyes lateral (Fig. 1a). Antennular peduncle 2-articulate, flagellum 14-articulate, with simple setae and aesthetascs (Fig. 2c); extending to midlength of pereonite I (Fig. 1a). Antennal peduncle 5-articulate, 4-5 elongate; flagellum 20-articulate (Fig. 2a), extending to midlength of pereonite III (Fig. 1c). Frontal lamina flat, pentagonal; clypeus short, broad; labrum short, broad, quadrangular (Fig. 2b). Mandible incisor broad; lacinia mobilis lobular, rounded, with simple setae and 3 distal spines; molar process triangular, with 12 spines and many simple setae; 3-articulate palp arising from middle of mandible, middle article with simple marginal setae, distal article with simple and comb-like setae (Fig. 2d). Maxillule, lateral lobe with 10 apical spines, medial lobe with 3 large plumose spines (Fig. 2g). Maxilla, lateral lobes with 4 and 9 simple setae; medial lobe with 6 simple and 6 plumose setae (Fig. 2e). Maxillipedal palp with simple, bifid and comb-like setae as figured; endite extending to second palp article, with 1 coupling hook, apex with 2 plumose and 1 simple setae (Fig. 2f).

Pereon length 5 times pleon length; pereon widest at pereonite V; pereon without dorsal tubercles or setae. Coxal plates large, increasing in size and acuteness posteriorly;

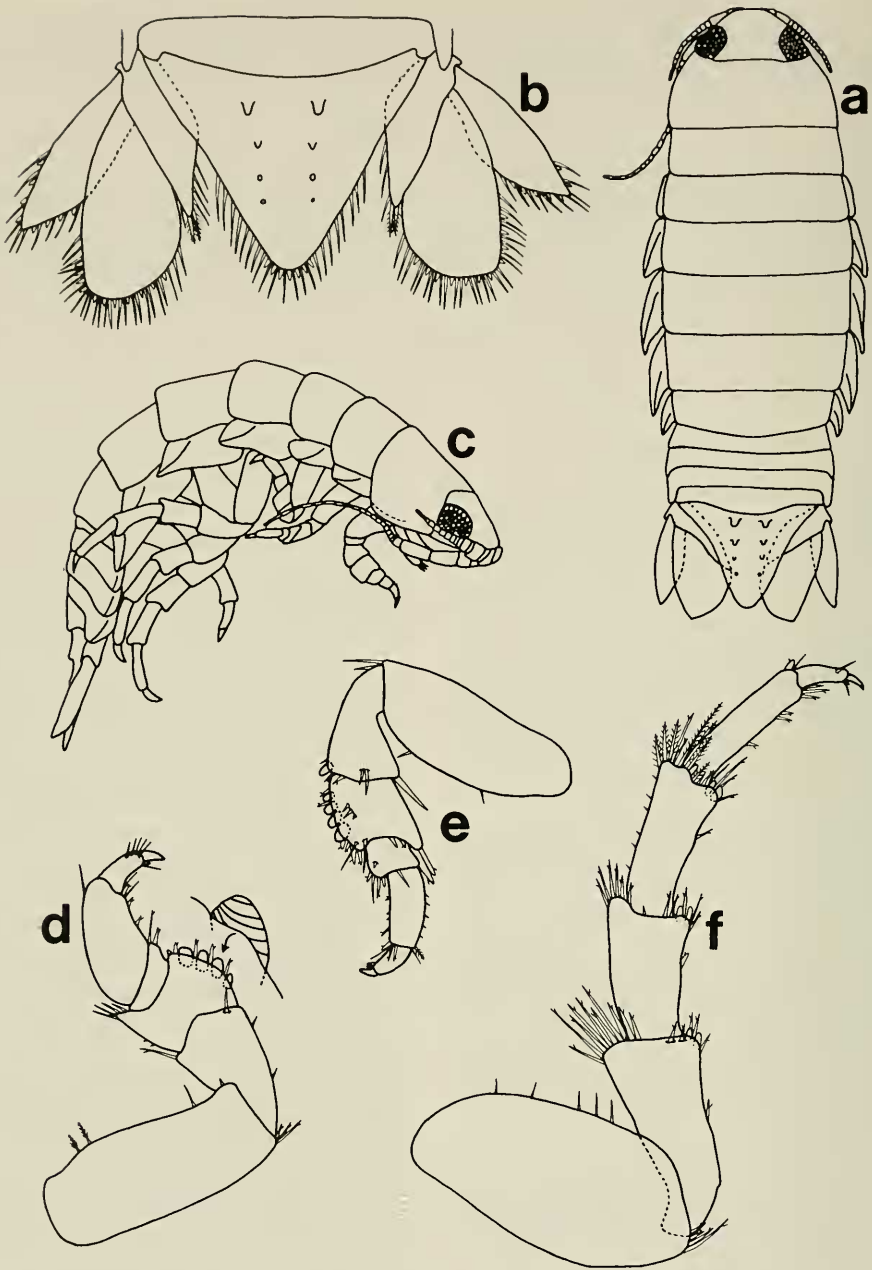


Fig. 1. *Cirolana tuberculata*: a, Dorsal view, pleotelson and uropod setae and spines not shown; b, Pleotelson and uropods; c, Lateral view; d, Pereopod I; e, Pereopod III; f, Pereopod VII.

coxae IV–VII extending beyond posterior margins of their respective pereonites; coxae VII extending to midlength of pleonite 2; coxae II–VII with single oblique carina,

no spines or setae (Fig. 1c). Pereopods I–III prehensile, dactyl with small secondary unguis, merus with 4–5 short, blunt spines on medial margin; simple, bifid and plumose

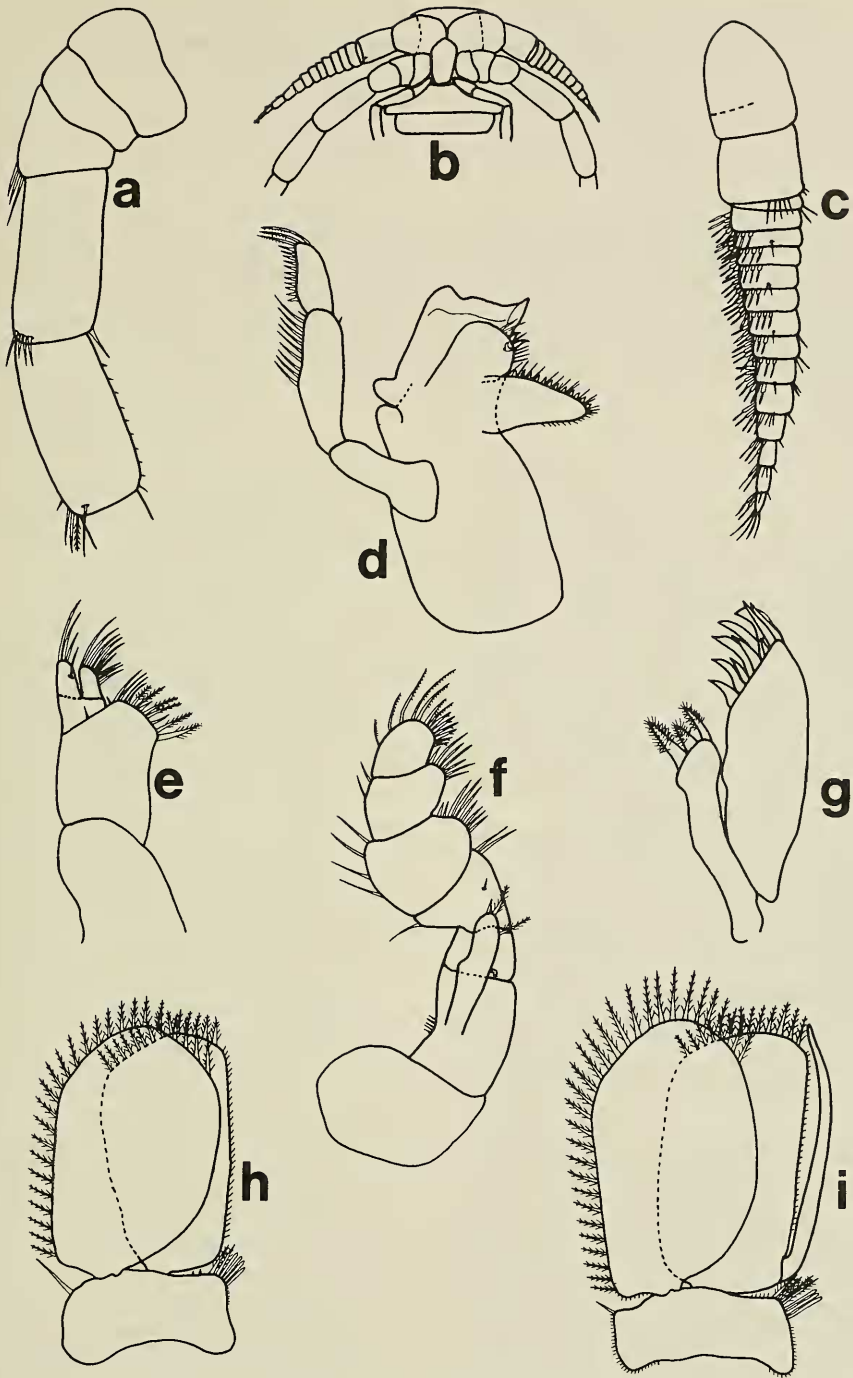


Fig. 2. *Cirolana tuberculata*: a, Antennal peduncle; b, Frontal lamina, clypeus and labrum; c, Antennule; d, Mandible; e, Maxilla; f, Maxilliped; g, Maxillule; h, Pleopod 1; i, Pleopod 2.

setae as figured (Fig. 1d, e). Pereopods IV–VII with small secondary unguis, and short blunt spines on medial margins; simple, bifid and plumose setae as figured (Fig. 1f).

Pleon widest at pleonites 3–4; pleonite 1 covered by pereonite VII; lateral margins of pleonite 5 overlapped by pleonite 4; pleonites 1–5 without dorsal setae or tubercles. Pleopods with plumose marginal setae (except endopod of pleopod 5), peduncles with 3 coupling spines and 2–4 plumose setae on medial margins (Fig. 2h, i). Male pleopod 2 with rodlike appendix masculinum arising from proximal medial margin of endopod (Fig. 2i). Pleotelson triangular, lateral margins slightly concave; apex with simple setae and 7 spines. Pleotelson dorsum with two parallel rows of 4 tubercles, decreasing in size posteriorly (Fig. 1b). Uropods extending well beyond posterior margin of pleotelson; exopod one-half width of endopod; apex acute, margins with setae and 7–8 spines; endopod broadly rounded, margins with setae and 11 spines. Uropodal peduncle, inner margin with 3–5 simple and 2 plumose marginal setae (Fig. 1b).

Female.—Similar to male but with less distinct tuberculation on pleotelson.

Remarks.—Richardson (1910) described this species as *Alcirona tuberculata* from two specimens collected in the Philippines, but figured only the posterior portion of the body and pereopod I of the male. The genus *Alcirona* Hansen, 1890, is distinguished from other genera in the family Corallanidae primarily by mouthpart morphology, including characters of the maxillule (lateral lobe with 2 large recurved spines, and occasionally 1–3 smaller spines between the 2 large ones), maxilla (short rounded lobe), and maxilliped (palp articles of approximately equal length, endite absent). For a key to the genera of Tridentellidae and Corallanidae see Delaney and Brusca (1985). The mouthparts of this species (Fig. 2d–g) show that it clearly does not belong in *Alcirona* but to *Cirolana* (Cirolanidae).

The linear pattern of pleotelson tuber-

culation in *Cirolana tuberculata* closely resembles that of *C. pleonastica* Stebbing, (1900:629, pl. LXVIIa) from New Britain in the southwest Pacific. *Cirolana tuberculata* differs from that species in number of pleotelson tubercles (4 pairs in *C. tuberculata*, 5 pairs in *C. pleonastica*), lack of dorsal pleotelson setae, lack of pereonal and pleonal tuberculation, number of coupling spines on peduncles of pleopods 1–2 (3 in *C. tuberculata*, 4 in *C. pleonastica*) and shape of labrum and maxilliped.

Acknowledgments

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